

REMARKS

Claims 1-18 are pending in this application. The Office Action rejects claims 1 and 7 under 35 U.S.C. §112, second paragraph; and rejects claims 1, 6 and 7 under 35 U.S.C. §102(b). Applicant hereby amends claims 1 and 7, and traverse the rejections.

I. Restriction Requirement

Claims 2-5 and 8-22 are withdrawn from consideration as subject to a Restriction Requirement. Applicant traverses the Restriction Requirement, for all of the reasons previously set forth. Furthermore, the claims of Group II should be rejoined with the claims of elected Group I at least because rejoinder is required in view of the allowability of the elected claims.

Where product and process claims are presented in the same application, Applicant may be called upon under 35 U.S.C. §121 to elect claims to either the product or process. MPEP §821.04. However, in the case of an elected product claim, rejoinder will be permitted when a product claim is found allowable and the withdrawn process claim depends from or otherwise includes all the limitations of an allowed product claim. Id.

In the present application, the method claims of Group II include all of the limitations of the product of Group I. Since the method claims of Group II include the limitations of the product claims of Group I, the method claims must be rejoined with the product claims once the product claims are allowed. Thus, to streamline prosecution and avoid delay, the Restriction Requirement should be withdrawn to permit concurrent examination of all of the pending claims. Applicant thus respectfully requests reconsideration and withdrawal of the Restriction Requirement.

II. Rejections Under 35 U.S.C. §112

The Office Action rejects claims 1 and 7 under 35 U.S.C. §112, second paragraph as being indefinite. The Office Action asserts that the phrase "mesh-like cracks" renders the

claims indefinite because "mesh-like cracks" is not "a mesh crack." Applicant hereby amends claims 1 and 7.

Instant claims 1 and 7, as amended, contain the recitation "mesh cracks." Claims 1 and 7, as amended, thus distinctly claim the subject matter which Applicant regards as the invention in the manner suggested by the Office Action.

For at least the foregoing reasons, claims 1 and 7 are definite. Reconsideration and withdrawal of the rejection are earnestly solicited.

III. Rejection Under 35 U.S.C. §102(b)

The Office Action rejects claims 1, 6 and 7 under 35 U.S.C. §102(b) as anticipated by each of Connolly et al. (U.S. 5,902,363), Hunter et al. (U.S. 3,799,796), European Patent (EP 0 766 993 A2; hereafter "EP '993"), and European Patent (EP 0 736 503 A1; hereafter "EP '503"). The Office Action asserts that each of these references disclose every feature of instant claims 1, 6 and 7. Applicant amends claims 1 and 7, and traverses the rejections.

A. Claims 1 and 7

Instant claims 1 and 7 recite "having mesh cracks." Mesh cracks are formed in the surface of the metal oxide support layer by carefully regulating the solid portion concentration in acidic metal salt solution or slurry to a specified value. For example, if the solid portion concentration is too high, the metal oxide support layer becomes too fine, and prevents cracks from adequately forming. Alternatively, if the concentration in the acidic metal salt solution is too low, the solution impregnates the pores, and the metal oxide support layer easily separates from the porous catalyst base material. Thus, the claimed "mesh cracks" are not inherent in all metal oxide support layer surfaces. Rather, they are carefully obtained. See specification, as filed, at page 12, lines 9-37.

None of Connolly, Hunter, EP '993, or EP '503 disclose "mesh cracks." Connolly describes an aluminous slurry containing formic acid in glycerol in which the solid content of

the dispersion is 62-65 wt% (see Example 1). Connolly nowhere discloses a method for making, or a product comprising a metal oxide layer having mesh cracks.

Hunter describes the use of a support material comprising a porous coating of $\text{Al}_2\text{O}_3/\text{SiO}_2$ fibers on a support such as aluminum honeycomb (see the Abstract and col. 2, lines 38-51). Nothing in Hunter discloses a method of making, or a product comprising a porous fiber support layer having mesh cracks.

Further, the Office Action characterizes each of EP '993 and EP '503, without reference to the instantly claimed "mesh cracks." As discussed above, having generally disclosed a porous catalyst base material and a metal oxide support layer does not inherently disclose mesh cracks. Accordingly, nowhere do either of EP '993 or EP '503 disclose, expressly or inherently, the claimed "mesh cracks."

Thus, these references each fail to anticipate the features of instant claims 1 and 7. Reconsideration and withdrawal of the rejection are earnestly solicited.

B. Claim 6

Instant claim 6 recites "a porous layer having an average pore diameter of 10 nm to 30 nm." None of the references disclose a "porous layer having an average pore diameter of 10 nm to 30 nm."

Connelly discloses .1 to 50 *microns* (See April 3, 2006 Office Action, page 3), and EP '503 discloses 10-60 *microns*. Microns are 1,000 times larger than nanometers. Further, the Office Action nowhere states that, nor do EP '993 or Hunter, disclose 10 to 30 *nanometers*. Thus, none of these references disclose, expressly or inherently, the features of instant claim 6.

For at least the foregoing reasons, instant claim 6, and instant amended claims 1 and 7, are not anticipated by any of Connolly, Hunter, EP '993 or EP '503. Reconsideration and withdrawal of the rejection are earnestly solicited.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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